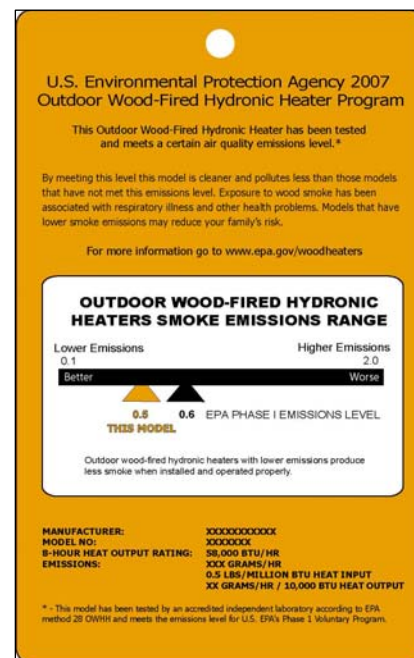


# REDUCING POLLUTION FROM OUTDOOR WOOD-FIRED HYDRONIC HEATERS

## FACT SHEET

### VOLUNTARY PARTNERSHIP PROGRAM

- As part of its effort to reduce the harmful effects of residential wood smoke, the Environmental Protection Agency has launched a voluntary partnership program to reduce air pollution from outdoor wood-fired hydronic heaters, also called outdoor wood boilers or outdoor wood-fired furnaces.
- The voluntary program, in conjunction with a model regulation developed by Northeast states, will bring significantly cleaner outdoor wood-fired heaters to market in 2007, and will provide tools to state and local governments that want to address outdoor wood-fired heater use in their areas.
- Outdoor wood-fired heaters burn wood to heat water, which is piped underground to provide heat for homes and other buildings. A typical outdoor wood-fired heater looks like a small shed with a smokestack, and is usually located next to the building to be heated.
- **Cleaner units will soon be available:** Ten manufacturers of outdoor wood-fired heaters have signed a memorandum with EPA, agreeing to make cleaner models available to consumers beginning in the spring of 2007. Under this agreement, the new models must emit no more than 0.6 pounds of particulate matter (particle pollution) per million BTUs of heat input (i.e., wood burned). The models must be tested by an accredited third-party laboratory to verify that they meet these levels. The cleaner heaters made available through the voluntary program will be about 70 percent less polluting than current models.
- **New models will be easy to identify:** Consumers interested in the new, cleaner models should look for an orange hang tag like the one pictured here. This tag will show how a specific model compares to EPA's performance specifications. A list of models that meet the reduced emission levels will be available on EPA's Web site in May 2007.



### MODEL RULE AVAILABLE FOR STATE AND LOCAL GOVERNMENTS

- EPA has provided technical and financial assistance to NESCAUM as that organization (Northeast States for Coordinated Air Use Management) developed a model rule that states, tribes and local governments may use if they choose to regulate outdoor wood-fired hydronic heaters. The rule can be tailored to address specific local situations.

- The model rule establishes emission limits and labeling requirements for new units. It also contains the following components for both new and existing outdoor wood-fired hydronic heaters:
  - setback requirements from property lines, structures and residences
  - stack height requirements
  - distributor and buyer notification requirements

## **REDUCING POLLUTION THROUGH BEST BURN PRACTICES**

- EPA also is working to teach consumers how to limit pollution through proper burning techniques. If you use an outdoor wood-fired heater, be certain it is properly installed – and burn only dry, well-seasoned wood. Burning anything else can make your heater produce more smoke – and that means more particle pollution.
- Burn dos:
  - Season wood outdoors, through summer, for at least six months before burning it. Properly seasoned wood is darker, has cracks in the end grain, and sounds hollow when struck against another piece of wood.
  - Store wood outdoors, stacked neatly off the ground with the top covered.
  - Burn only dry, well-seasoned wood that has been split properly.
- Burn don'ts:
  - Never burn household garbage or cardboard. Plastics and the colored ink on magazines, boxes, and wrappers produce harmful chemicals when burned.
  - Never burn coated, painted, or pressure-treated wood because it releases toxic chemicals when burned.
  - Never burn ocean driftwood, plywood, particle board, or any wood with glue on or in it. They all release toxic chemicals when burned.
  - Never burn wet, rotted, diseased, or moldy wood.

## **BACKGROUND**

- Current outdoor wood-fired heaters are substantially less efficient and more polluting than other home-heating devices. Because their smokestacks generally are close to the ground, they also can create dense smoke that is both unhealthy to breathe, and a public nuisance.
- In recent years, use of outdoor wood-fired heaters has increased in many areas as the cost of home heating has risen. Heavy smoke from outdoor wood-fired heaters has prompted health concerns and public nuisance complaints, leading some communities to restrict or ban the heaters' use.
- Smoke from outdoor wood heaters can contain several pollutants that are harmful to breathe, including fine particle pollution. Exposure to fine particles – particles 2.5 micrometers in diameter and smaller – is linked to a variety of health problems, including: increased respiratory symptoms; decreased lung function; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease.

**FOR MORE INFORMATION**

- For more information about outdoor wood-fired hydronic heaters, to learn more about the voluntary partnership and to see tips for proper heater use, visit EPA's Web site at [www.epa.gov/woodheaters](http://www.epa.gov/woodheaters).
- For information about the NESCAUM model rule, visit [www.nescaum.org](http://www.nescaum.org)